UNITED
NATIONS

E

Economic and Social
Council

Distr.
GENERAL

E/CN.4/1995/137
21 February 1995

ORIGINAL: ENGLISH

COMMISSION ON HUMAN RIGHTS
Fifty-first session
Agenda item 7

QUESTION OF THE REALIZATION IN ALL COUNTRIES OF THE ECONOMIC, SOCIAL AND CULTURAL RIGHTS CONTAINED IN THE UNIVERSAL DECLARATION OF HUMAN RIGHTS AND IN THE INTERNATIONAL COVENANT ON ECONOMIC, SOCIAL AND CULTURAL RIGHTS, AND STUDY OF SPECIAL PROBLEMS WHICH THE DEVELOPING COUNTRIES FACE IN THEIR EFFORTS TO ACHIEVE THESE HUMAN RIGHTS, INCLUDING: PROBLEMS RELATED TO THE RIGHT TO ENJOY AN ADEQUATE STANDARD OF LIVING; FOREIGN DEBT, ECONOMIC ADJUSTMENT POLICIES AND THEIR EFFECTS ON THE FULL ENJOYMENT OF HUMAN RIGHTS AND, IN PARTICULAR, ON THE IMPLEMENTATION OF THE DECLARATION ON THE RIGHT TO DEVELOPMENT.

Note verbale dated 16 January 1995 from the Permanent Mission of Iraq to the United Nations Office at Geneva addressed to the Centre for Human Rights

The Permanent Mission of the Republic of Iraq to the United Nations Office in Geneva presents its compliments to the Centre for Human Rights and has the honour to enclose herewith a study entitled "The impact of the blockage on Iraq".

The Centre for Human Rights is kindly requested to consider this study as a document under agenda item 7 of the fifty-first session of the Commission on Human Rights.

GE.95-11239

Study On

The Impact of the Blockade on Iraq

1. On internal medicine services
2. On children with malignancy
3. On health services.
4. On drug supplies.
5. On nuclear medicine services.
6. On cancer patients.

Submitted by the Government of Iraq to the (51st) Session of the UN Human Rights Commission

On Item 7

THE IMPACT OF THE SANCTIONS ON INTERNAL MEDICINE SERVICES IN IRAQ

The health care available in many parts of the world is significantly inferior to that available in North America and Western Europe. Many conditions go undiagnosed and untreated in these parts. The two primary reasons for these diminished health care conditions are capital constrain and lack of educational awareness. But here in Iraq it is not the awareness but the "Educational Blockade", which has been imposed on Iraq. Medical equipment need services, training and spare parts.

The impact of the sanctions on the health care is very serious and grave :

1- The capital constrain with reduced budget.

2- Partial utilization of the already squeezed Budget of health care, because of the blockade on the import which has led to serious shortage in drugs and other life saving measures and medical equipment. Even a number of shipments of medicines ordered and paid for prior to August 1990 has not been delivered.

3- Reduction in the number of hospitals beds available per capita of population in addition to reduced bed occupancy to 25-30%.

4- Lower nutritional status of the community which has led to increased morbidity and mortality.

5- Insecure local environment with its increase effect and added strains on the community plus lack of vaccines and irregular immunization programmes which has led to appalling increase in the morbidity and mortality from infections diseases.

6- <u>Delayed or Misdiagnoses</u>

a- Because of delayed attendance for consultations due to lack of very high cost of transportation.

b- Lack of facilities for laboratory investigations to do minimum tests available for daily routine manual methods, let alone the absence of advanced methods which are not performed in the country. Those who can afford has to travel abroad to do these investigations.

c- Lack of X-Ray Films, Developers and dyes with break down of X-ray machines and other equipment due to lack of spare parts and inadequate maintenance.

d- Lack of Endoscopies with lack of newer Endoscopic procedures and other non invasive methods.

e- Lack of new ultrasounds and echocardiography equipment.

f- Lack and break down of cardic cath. laboratories with the long waiting list of patients.

g- C.A.T. Scan : no C.A.T. Scan available in the town.

h- Magnetic Resonance Imaging is a dream.

So for diagnosis we are back to the era where we have to use our clinical sense and experience deprived of the new technology in medicine with frequent delayed or misdiagnosis.

7- THE TREATMENT

The dilemma of the doctor and the patient starts when we have labeled the disease with a name i.e. the diagnosis waiting hopefully for the treatment to relieve the patient's suffering or to cure his disease, with drugs adequate in quantity and quality, but in vain. Then we have to be satisfied with the nearest alternative and the minimum possible dose. Here the health care system rightly has introduced drug rationing.

8- "DRUG RATION":

Drug rationing is to secure the supply of drugs to those with chronic diseases, i.e. drugs for Cardio Vascular System (C.V.S), Indocrine disease, Peptic ulcer, Bronchial authma, etc. , with a cheap subsidised price, a very noble good policy which ensure the treatment to be continued, in spite of few defects:

1- The process of organizing the chronic diseases certificate is rather tedious for some patients, there is a gap between immediate

diagnosis and immediate requirement of the patient "which might be urgent", and the supply of the drug through the certificate.

2- The treatment has to be changed according to the alternative drugs available.

3- The dose has to be reduced by the centre because of the reduced storage, and sometimes has to be cut altogether.

9- DRUGS IN PRIVATE PHARMACIES:

The Ministry of Health is the only body responsible for drug importation and distribution. Because of the low amount of imported drugs or insufficient amount manufactured, the supply of the drugs to the private pharmacies (other than the items included in the chronicillness certificate) is not enough and here is the problem with those patients, obtaining the drug in lower quantities with rather higher prices. So you can imagine how this lack of drugs lead to increased suffering with increased morbidity and mortality rates.

10- Embargo and its effect on Educational and Medical Experience:

1- Lack of medical journals, papers, periodicals, literature and recent published books.

2- Lack of attendance to the medical conferences abroad.

a: No Hard Currency.
b: No Visa Issued.

3- Lack of visiting experties to the country who used to come for teaching, consultation, do surgical procedures and attend local medical conferences.

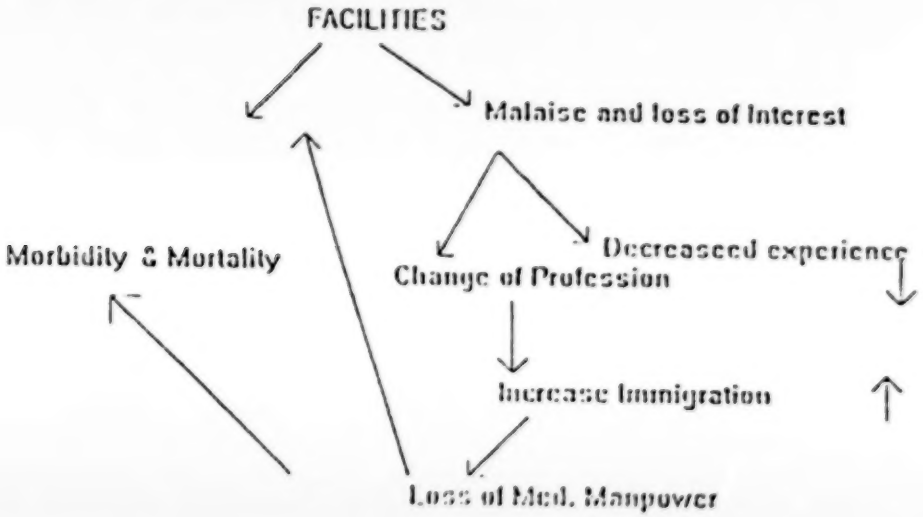
4- No scholarships for postgraduate studies, refresher and training courses.

11- EXAMPLES: of some Diseases and Sanctions.

1- INFECTIONS.
2- HEPATITIS.
3- PEPTIC ULCER.
4- RESPIRATORY DISEASES.
5- ENDOCRINE & METABOLIC DISEASES.
6- RENAL DISEASES.
7- DISEASES OF NERVOUS SYSTEM & PSYCHIATRIC DISEASES.
8-MALIGANT DISEASES. ((CHEMOTHERAPY&RADIOTHERAPY))
9- DISEASES OF CARDIO VASCULAR SYSTEM.

a- CONGENITAL HEART DISEASES.
b- RHEUMATIC FEVER & RHEUMATIC HEART DISEASES.
c- HYPERTENSION.
d- ISCHEMIC HEART DISEASES.
e- HEART FAILURE.

12- EXPECTATIONS:



13- CONCLUSION:

Here we are, before the sanctions with a very good National Health Care System with advanced medical technology which was almost free and available to everybody in the country, to almost collapsed Health Care System with increased morbidity and mortality rates which is expected to last for years to come even if the blockade is lifted today.

The health aspects of Iraqi children are severely affected by the embargo. The impact included the nutritional. Preventive, diagnostic therapeutic. and psychological aspects of children.

Children with malignancy are among those who suffered at most from the embargo. To demonstrate this effect, we will take the acute lymphocytic leukemia as an example because it is the most common malignancy in children and it is the first neoplasm in which the cure was achieved with the longest survival rate.

Basically in this study we will compare between the outcome of those children befor and after embargo. the year of aggression (1991, will not be included because of the problems in transportation, the relocations of some families, etc.

The parameters studied are : the number of the new pateints. the relapsing rate (Recurrence of the disease I in term of systemic and extramedullary (out side the bone marrow , and the mortality rate. The children studied are those who attain Saeldam teaching hospital for children.

The study revealed a progressive increase in the number of the new pateints after the embargo through the successive years, (table 1)

Table 1

Year	1990	1992	1993	1994 (first 6months)
No. of new cases	10	47	75	47
percent		470%	750%	940%

For the systemic relapse, a similar result was obtained in term of increase in the rate of relapse, as we see from (table 2)

Table 2

Year	1990	1992	1993	1994 (first 6 months,
No. of relapse	19	58	75	45
percent		300%	400%	470%

The extramedullary relapse (outside the bone marrow) revealed a similar result with a continuous increase in the number of patcints who l over the years during embargo. (table 3)

Table 3

Year	1990	1992	1993	1994 (first 6 months)
No. of relapse	5	19	27	19
Percent	100%	380%	540%	760%

The mortality rate also increased. as we see from (table 4).

Table 4

Year	1990	1992	1993	1994 (first 6 months)
No. of death	20	33	35	20
percent	100%	160%	175%	200%

The results obtained in this study regarding the outcome of children with acute leukemia are highly significant in comparison between the embargo years and the year before in all parameters which indicate a continuous deterioration in the health of our children as a result of unjustified embargo .

IMPACT OF THE SANCTIONS ON HEALTH SERVICES IN IRAQ

The aggressive war on Iraq in 1991 brought about massive destruction in many elements of the country's physical and service infrastructure. The most immediate consequence was the environment. there are reported outbreaks of cholera and of other infectious diseases. these communicable diseases which Iraq succeeded to eradicate are now widespread. According to the World Health Organization, Harvard Study Team and the Unicef, the rate of mortality is 6-8 times greater than before the outset of the war.. These may include but in no way limited to: ((Typhoid, Paratyphoid, Dysentery, Hepatitis and Poliomyelitis)).

1- Medical Supplies:-

It has frequently been announced by the United Nations that foodstuffs and medicines are exempted from the Sanction Resolutions. Yet, the following examples bear abundant evidence that medicine embargo is still in effect if not on the increase and that it is targeted mostly against the people of Iraq.

a) We attach herewith a copy of the telex sent by the British B. Wellcome Drug Company. It is self-explanatory. It was received from Britain; a country which claims it promotes and advocates human rights. The telex informed us of the British Government's disapproval for the export of Angised tablets to Iraq. These tablets are normally used for the treatment of Angina pectoris. They are very important as are of life-sustaining drugs, without which a patient has no or little opportunity for survival. Iraq has already paid US $ 150,000 for the supply of 150,000 bottles of the drug. The quantity asked for accounts for only 20 percent of Iraq's annual needs. Yet, the British Government did not allow the export of the drug. It said it contained glycerin trinitrate and there was likelihood that Iraq might use this substance making bombs!! Everyone with special medical knowledge knows that this substance is made in the form of tablets and that it contains less than a milligram of it, and if Iraq, for the sake of argument, has ordered hundreds of tons of the substance, a quantity that takes several years for the Company to produce, then it wouldn't be possible for Iraq to develop even one bomb.

b) The second case in point is the letter addressed by the Ministry of Health to the Atomic Energy Agency in Vienna for the supply of radio-active isotopes for the treatment of cancerous diseases. The

Agency told us that it had used its influence to obtain the isotopes from the manufacturing company but nothing happened in effect. If this kind of dealing is of any indication, it reveals a blatant desire to maintain the sanctions imposed on Iraq and to further increase the rate of deaths among the patients. The supply of the isotopes have been suspended since August 1990 in spite of the fact that Iraq has already paid their costs.

c) International inspection teams have destroyed all the available quantities of Ammonium Nitrate, a substance used locally for the production of Nitrous Oxide in large cylinders. This anesthetic agent proved to be highly affective for the cases of difficult deliveries that need cesarean section operations. When manufactured locally it is more economical than the ones imported from abroad as they come in large cylinders and send by air. It followed that a severe and a cute shortage of this preparation had been reported in ante-natal hospitals with a consequent deaths of pregnant women or of the foetus in the wombs. The Unicef representative in Baghdad was formally invited to be actually present to see these cases. Full with amazement he sent a telex to his organization's headquarters asking for a prompt shipment of the cylinders that contain the substance. The process has proved to be both lengthy and complicated. The required cylinders had to be sent form Copenhagen to Amman by air and form Amman to Baghdad by land. It seems they haven't realized how much time and effort it will take to respond to such a matter of great urgency. It is clearly contrary to the medical code of ethic.

2- There are many other examples in support of our claim. It goes without saying that with the lack of life-sustaining drugs no quality medical care can be provided properly. It is the allied countries which try, from time to time, to obstruct the delivery of medical supplies on which the patients continued existence depend. They adopted a far more uncompromising attitude when they turned down a proposal to unfreeze Iraq's assets held in foreign banks for the purchase of medicines and health supplies. Every time they asked to do so they gave and indeed still giving numerous excuses for being more of a hindrance than a help. They began to ask such amusingly foolish questions as : ((What is the quantity required? What is your annual need? How much of the medicines asked for have you already dispensed? What is the rate of morbidity? Are the documents duly signed? Has our representative

in Baghdad ratified them? All these questions and many others have one underlying purpose; to delay any shipment of medicines to Iraq.

3- Between January and August 1990 Iraq paid more than 56 million dollars in cash to different companies in Germany, Britain, Japan, USA, and Italy for the supply of medicines. However, a large number of the contracts negotiated and signed with these companies had not been executed. This happened in spite of our repeated confirmations and of the talks held with the companies' representatives in Geneva in 1992 under the supervision of the International Committee of the Red Cross. The delegates indicated that Iraq's goods had been withheld for the time being and that they all desire to deal with Iraq but they had instructions from their respective governments not to send the goods to Iraq!.

4- The prevalence of malnutrition among the infants, lactating mothers and pregnant women together with the acute shortage of baby formula have diminished the children's resistance to diseases. This condition of not getting enough food or enough of the right kind of food has had a profoundly adverse impact on the health of pregnant women and lactating mothers. Hence, there has been a sudden and striking incidence of low birth weight babies (less than 2.5 kg.) or of feeding difficulties. If we take these two factors combined they would eventually lead to further complications or even death.

5- preceding form above, the number of deaths between August 1990 and March 1994, as a result of the international sanctions and of other reasons; direct indirect, has totalled 431,093 of which 153,448 for the children under five years of age and 277,645 for the five age group and above. Besides, the functioning of the medical system in general has been severely and tremendously effected.

THE IMPACT OF THE SANCTIONS ON DRUG SUPPLIES

There are three factors influencing the treatment of patients: Medical personnel, Equipments and Medical Supplies for diagnosis and thirdly drugs. This is a fact no body can deny. Therefore, any disturbance o or lack in one of these three elements will have negative reflexes on the social, economical, mental and physical aspects of the patient.

Drugs like antibiotics play a significant role in both the curative and preventive processes of treatment because they are prescribed and used in many diseases and surgical operations.

The impact of the sanctions affected health services all over the country due to the shortage of drugs and medical supplies. The reduction of drug supplies as well as the infected environment, malnutrition, unclean water supply, all these factors helped many diseases to spread out and make the situation even wors.

The figures and data mentioned in this paper are supplied by official sources concerning the amount of drug supplies to both sectors (Governmental and private)

OBJECTIVES:

1- To demonstrate the effects of drug shortage due to the sanctions on health services.
2- To demonstrate the effects of continuos sanctions on the prevalence of diseases.
3- To give a comparison between the rate per person of drugs used for communicable and chronic diseases before and after the sanctions.

MATERIALS AND METHODS:

The scope of work was to investigate in three main issues in order to find the relationship between these elements " population, disease, and drugs" to reach the objectives.

1- Select the total number of patients attacked in each of eight communicable diseases: (Measles Pneumonia, Cholera, Typhoid, Amebiasis, Mentingitis, Baghdad boil and Malta fever.) and Calculate the need of antibiotics per person.
2- Select the total number of patients attacked in each of three main chronic diseases "Diabetes, Cardiovascular, and Hypertension," to

compare the share of each patient of the drugs distributed for these particular diseases before and after the embargo.

3- To find the rate of increase in selected communicable and chronic diseases compared with the increased rate of population.

4- 1989 was considered as standard year.

RESULTS:

1- There was a sharp decline in antibiotics supply per individual during the sanctions years 90-93 , compared with the year 1989 .e.g. rate of decrease in No. of capsules was 33% for 1990 & jumped to 48% for 1993. Also for parenterals the percentage of decrease was 60% in 1993. The reduction of liquid forms of antibiotics reached to 67% for 1992.

2- There was a huge increase in the prevalence of communicable diseases according to table I e.g. measles 100% increase for 1991 & raised to 203% for 1992. The No. of patients in case of pneumonia reached 234% for 1991, also Typhoid cases showed 850% increase in 1991 & 1060% for 1993.

3- The data collected for chronic diseases indicate drastic prevalence in No. of cases with drastic shortages & no availability of drugs used for their treatment during the sanction e.g. in case of diabetic patients the rate of medication decreased to 34% in 1991 & 25% in 1993 according to table II.

Cardio-Vascular diseases, the percent in reduction of drugs related to these diseases was 29% in 1991, as well as for hypertension the decrease was estimated at 40% in 1991.

In analyzing the data presented in tables I, II, III, we could easily find the gap between the number of patients, Prevalence of diseases and drug distributions. No one can doubt the seriousness of this problem which afflicts millions of human beings if the sanctions will continue.

DISCUSSION:

The document shown assesses the nature and magnitude of the health problem which the nation is facing with the continuation of the sanctions: Reduction in drug supplies, increase of diseases will definitely influence the planning and development of the health services in Iraq. So the issue of treating patients in the right way and right doses with right diagnosis will be obscured and as a result, patients will always be the victims of the sanctions.

CONCLUSION and RECOMMENDATIONS:

Although importation of drugs and medical supplies are not prohibited according to UN Security Council resolutions we found big difficulties in importing drugs because of great unjustified policies applied by drug supply companies and through political pressure of their governments which added a new factor to our bad situation for maintaining our needs of drugs and poor medical supplies in order to serve our patients in health centers to the minimum requirements:

- Consumption of drugs increased after 1990 because of the population increase, polluted environment, polluted water, bad health care and malnutrition, all were reflected on a drastic increase in communicable and chronic diseases.

To justify the case with all the information and facts mentioned in this paper, we easily conclude that there is a dilemma in Iraq and a complete negligence of human rights. The existing condition due to the sanctions will deteriorate our national health system and lead us to a fearful and worried speculations in health services and nutritional problems for the whole nation.

The embargo needs vital movement today from all nations and organizations to rescue a nation with a population of 20 millions from the greatest crime of the twentieth century, which certainly leaves millions of Iraqi children and elderly people affected by the sanction with no proper nutrition, medicine or baby milk.

It is the responsibility of the whole nations and human right organizations & individuals to start moving to play a bigger role in utilizing all measures, efforts, pressures and potentials to help lifting this inhuman sanction.

At the end, I hope we have succeeded in our demonstration that the scopes of the sanctions really have a wide effect on our health services which directly influence the curative and health care and consequently on the prevalence of diseases and suffering of sick people, which should be condemned by all people who believe in and serve the cause of human rights and justice.

EFFECTS OF BLOCKADE ON NUCLEAR MEDICINE SERVICES IN IRAQ

The potential of nuclear medicine services the management of diseases was expanding rapidly in Iraq during the last two decades . These services are performed in many nuclear medicine departments in hospitals in addition to private radioimmunoassay, (RIA) laboratories . Nuclear medicine techniques help in providing the information required to treat. or manage specific clinical problems of interest .

Nuclear medicine services need the availability of radionuclide generators ; radiopharmaceutical and RIA kits : radioisotopes therapy, doses; and several appliances including Scintillation devices and accessories . Continuos maintenance and spare parts are essential in routine nuclear medicine works . Most of these items are supplied by foreign companies. The blockade which was imposed on Iraq has prevented supplying these items concerning nuclear medicine activities . This decision , undoubtedly medicine works had a serious effects on nuclear and it destroyed the plan of development of nuclear medicine in Iraq . This is certainly. discordant with all international and religious laws .

The main intent of this report is to establish an awareness among our colleges , guests , and the representatives of international organizations of the serious effect of blockade on nuclear medicine services in Iraq . The report will discuss , briefly ! these effects which are divided into four main categories :

1- The effect on nuclear medicine instruments :

Gamma Camera is the principle device of clinical investigation for imaging radioactivity, distribution in vivo and is the only device used in each department . Sixteen gamma cameras were distributed in six nuclear medicine departments throughout the country . Eleven of these are out of work due to lack of spare parts and maintenance . While the other four cameras are working improperly . also the blockade has prevented importantion and installation of two new gamma cameras by foreign company
(table 1).
This situation has almost paralyzed the work of nuclear medicine in the country .

2- The effect on radiopharmaceutical and RIA kits :

A large number of radiopharmaceuticals have been employed in imaging of body organs . Technetium 99m eluted from molybdenum 99-technetium 99m generator supplied weekly by Amersham Company was the radioisotope of choice in performance of different scintigraphic studies . Thallium 201 (Tl-201) radioisotope is currently used for myocardial perfusion imaging . It has been proven that Tl-201 imaging is an extremely sensitive method for the detection of coronary artery disease . RIA kits are used in measurements of serum hormones levels.

Table 2 demonstrates, clearly, the effect of blockade on the availability of these radioisotopes and kits used in nuclear tests . The comparison between the two ,years period before and after blockade showed , obviously , that the total decrease of these radioactive materials was

TABLE 1

NUCLEAR MEDICINE INSTRUMENTS

NO.	NM DEPT.	Gamma CAMERA	OUT OF WORK
1	MC	2	1
2	HRNM (B)	7	5
3	HRNM (M)	2	2
4	AMH	3	2
5	NCH	1	1
6	ATH	1	
	TOTAL	16	11

BLOCKADE RESULTANTS

1- 11 Gamma-CAMERAS OUT OF WORK
2- STOP INSTALLATION OF 2 NEW Y-CAMERAS (1991)

TABLE 2

NUCLEAR MEDICINE MATERIALS

YEAR	99-99m GEN. (NO.)	201 (mc)	^{131}I cap (ci)	Invivo kits	invitro kits
1988	312	624	35	788	1392
1989	312	624	35	788	1392
TOTAL	624	1248	70	1576	2784

Blockade Period

1990 (7 mon.)	210	360	20.5	448	812
1991	----	----	----	----	----
1992	312	416	36.5	788	1392
1993	-----	-----	-----	----	----
Total	522	776	57	1236	2204

Diff (A-B)	102	472	13	340	580
T.Dec	726	1306	86	1916	3364

Accordingly, a large number of nuclear tests were discontinued. Thousands of patients have lost the usefulness of these tests in management of their illnesses, particularly, those patients with malignant diseases.

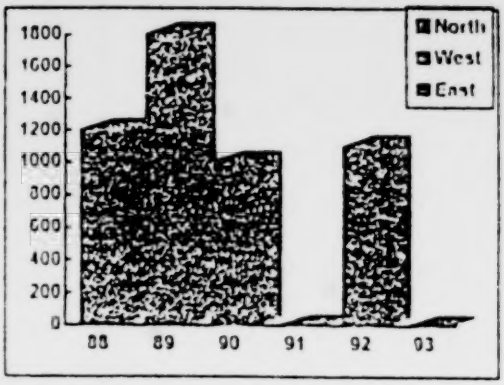
The following figures after analysis of data obtained from the Institute and Hospital of Radiology and Nuclear Medicine / Baghdad are used to show, numerically; the serious effect of blockade on nuclear tests. Fig. I shows that the total decrease in whole body bone scintigraphic studies was 3820. Fig. 2 reveals that 3444 scintigraphic studies for brain were not done. Fig. 3 Shows the reduction of liver scintigraphic studies to 3731. while radionuclide renal studies were decreased to 1164 (Fig. 4). Thyroid disorders are very common in our country. Thyroid function tests constitute the bulk of nuclear tests. The decrease in these tests during the blockade period was 45411 tests (Fig. 5).

3- The effect on radioisotopes therapy :

Radioiodine 131 I^{131} has been used widely in our country as a treatment of choice for well differentiated thyroid cancers after surgery. The ablatic.: dose of I^{131} recommended for cancers is between 50 to 150 mci. Also I^{131} is commonly used for the treatment of different types of hyperthyroidism.

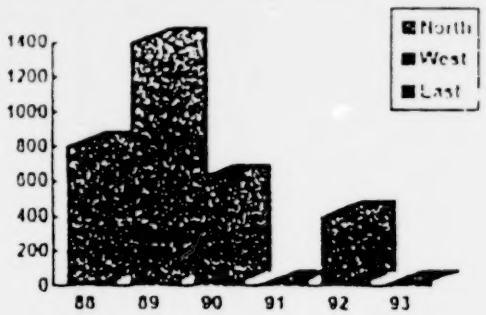
731 patients with papillary or follicular thyroid cancers were on follow up and treatment with I^{131} therapy

Fig. 1
College of Medicine
Department of Nuclear Medicine



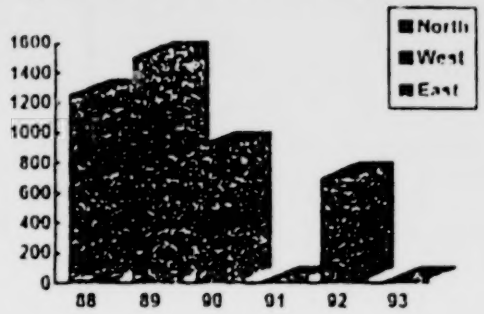
years
T Dec. 3820
Prepared by : Dr. Mohammed A.Al-Eid

Fig. 2
College of Medicine
Department of Nuclear Medicine



years
T Dec. = 3444
Prepared by : Dr. Mohammed A. Al-Eid

Fig. 3
College of Medicine
Department of Nuclear Medicine

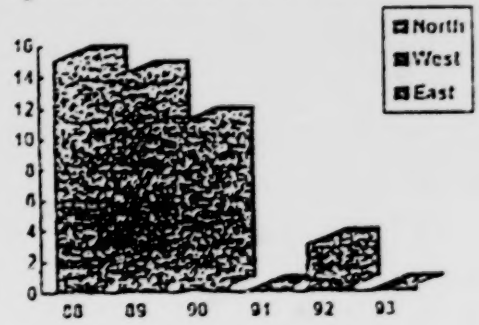


YEARS
T Dec. = 3731
Prepared by : Dr. Mohammed A.Al-Eid

Fig. 4
College of Medicine
Department of Nuclear Medicine

YEARS
T Dec.= 1164
Prepared by : Dr. Mohammed A.Al-Eid

Fig. 5
College of Medicine
Department of Nuclear Medicine



YEARS
T Dec.=45411
Thyroid (< RIA)

in the Institute and Hospital of Radiology and Nuclear medicine / Baghdad (Table3). Their treatment were discontinued periodically , due to unavailability of I^{131} doses. In analysis of data .463 patients with thyroid cancers had received I^{131} therapy before the blockade, while only 261 patients were treated by I^{131} during the Blockade Period. Therefore the number of cancer patients losing the chance of treatment was 202 (table 4) 178 patients with different types of hyperthyroidism were treated by I131 during the blockade Period (Table 5). We can judge that the blockade has a real effect on nuclear medicine therapy. Unfortunately , this effect increases the morbidity and the mortality rates among hyperthyroid and thyroid cancer patients.

Table 6 summarizes the effects of blockade on nuclear tests and I131 therapy. The total number loss of

different scintiKrapllic studies up to 1993 was 57570 , while the overall decrease including both diagnostic tests and therapy doses was 58153 .

4- The effect on training and postgraduate studies :

Really it is painful to say that all aspects of nuclear medicine education training and postgraduate studies were discontinued due to lack of teaching requirements . This has resulted in reducing the number resulted nuclear medicine specialists and well trained nuclear technicians. In summary , the blockade decision has led to several.

LABLE -4- RADIOIODINE THERAPY

Year	F	M	Total	F	M	Total	Total
1981	32	11	43	28	27	55	98
1982	8	8	16	25	22	47	63
1983	23	22	45	33	61	94	139
1984	34	23	57	58	52	110	167
1985	21	16	37	34	27	61	98
1986	19	10	29	32	18	50	79
1987	25	14	39	29	25	54	93
1988	43	16	59	62	40	102	161
1989	29	12	41	58	31	89	130
Total	234	132	366	359	303	662	1028

TOTAL 731

LABLE -4- RADIOIODINE THERAPY (Contin)
Blockade Period

Year	F	M	Total	F	M	Total	Total
1990	13	5	18	56	25	81	99
1991	---	---	---	---	—	—	—
1992	56	23	79	61	23	83	162
1993	---	---	---	---	—	—	—
Total	69	28	97	117	48	164	261

I Dec 463-261 202

TABLE -5-

RADIOIODINE THERAPY FOR HYPERTHYROIDISM

YEAR	F	M	TOTAL		
1986	104	44	148		)
1987	143	46	189		) 557
1988	94	25	119	)	)
1989	79	22	101	) 220	)
TOTAL	1063	478	1541		)

T Dec.= 379

YEAR	F	M	TOTAL
1990	79	19	97
1991	---	---	---
1992	61	20	81
1993	---	---	---
TOTAL	139	39	179

TABLE -6- BLOCKADE RESULTANTS

BLOCKADE

		(A) TN 1988-1989	(B) TN* 90 (7-mon.), 92	(B) Diff (A-B)	T Dec (A+D)	
Scint + RIA	Liver	2575	1419	1156	3731	
	Bone	2981	2142	839	3820	
	Brain	2199	954	1245	3444	
	Renal	752	340	412	1164	
	Thyroid	29145	12879	16266	45411	
TOTAL					57570	
I^{131} RX	Hyperthy	220	178	42	262	
	Carcinoma	291	261	30	321	
TOTAL					583	58153

* NO NUCL. IMAGING & THERAPY DURING (1991 & 1993)

dangerous results and effects. This decision has prevented supplying all kinds of radionuclides ; kits ! spare parts, Polaroid and X-ray films ; processing materials (developer and fixer) . Besides to ! the maintenance of instruments and installation of new gamma cameras . While the effects include the followings : nuclear medicine services became almost out of medical aids ; improper management of cancer patients; a sizable number of patients with thyroid cancers or hyperthyroidism are unable to continue their treatment by I^{131} ; and discontinued of postgraduate nuclear medicine training and studies .

Finally , everybody reading this report and attending this symposium will realize the great risks of blockade on Iraqi people health . This ! simply ! discords with the definition of health stated by WHO as follow :
"A state of complete physical ! mental and social wellbeing! and not merely the absence of disease or infirmity . The enjoyment of the highest attainable stand of health care is One of the fundamental rights of every human being without distinction of race ! religion , political belief, economic or social condition . The health of all people is fundamental to the attainment of peace and security and is dependent upon the fullest cooperation of individuals and states"

THE IMPACT OF THE SANCTIONS ON CANCER PATIENTS

Since the beginning of the sanctions on Iraq, great shortages have occurred in medical utilities and drugs in general and cancer patient services in particular. The continuos bombardments of all cities in Iraq, and the destruction of the infra structure services including communications and transport together with the continuation of sanction caused great difficulties for cancer patients to attend to the medicine centres to have the proper attention and treatment we can discuss the effects of sanction on Cancer patients under the following headings:

I. Cancer Prevention
   1. First line prevention.
   2. Second line prevention.

II. Diagnosis :
   1. Biochemical reagents.
   2. Cytological & Histopathological exams.
   3. Tumour markers.
   4. Image diagnostic facilities:
      X-ray
      C.T.scan
      N.M.R.
      Nuclear Medicine

III. Treatment of Cancer Patients:
   1. Radiotherapy
   2. Chemotherapy
   3. Hormonal Therapy
   4. Immunotherapy
   5. Clinical trials.

IV. Patients Care
V. Patients follow up.
VI. Cancer death.

I. Cancer Prevention:

1. First line prevention: During the last four years great change in type and food habit has occurred and the Iraqi cancer registry recorded a change in the frequency of colonic cancer from 1.6% in 1985 to 2.6 % in 1993 which could be attributed to food. There is also increase frequency of breast cancer in female below 30 years of age. The eradication of Bilharzias which is an important aetiological factor in cancer of the urinary bladder has been stopped due to exportation of the material used for snail eradication and absence of treatment (praziquantil)

2. Second line prevention: All cancer related check up guidelines can not be carried out at present time due to sanction as they need many essential items which are absent.

Brast Cancer: is the most common cancer among Iraqi women and the second most common cause of death due to cancer. The five year survival rate of localize breast cancer is 90% and in carcinoma in situ approximately 100% but if the tumour spread locally , the five year survival rate drops to 65%. This illustrate the importance of early detection of breast cancer and such program can not be started due to shortage in X-ray films and machine. The same is applied to early detection of bronchogenic carcinoma.

II. Cancer Diagnosis :

Diagnosis of cancer requires various investigations which may be summarized as follows:

1. biochemical test: there is shortage in various biochemical test that help in the diagnosis and staging of cancer patients particular the enzyme and some hormonal metabolites.
2. Cytological & Histopathological exam:
   There is shortage in several essential materials are.

a-ita n-pap l ke Harr s haematoxyl n, Eos n 65, Orange G 6.

b-Ethanol absolute - Alcohol 100%.

c-Reagents and K ts for mmunoperox dase sta n ng fchniques.

d-il des and cover sl des.

e-Kn ves for rotary m crotomes. and many other essent al mater als.

Table represent the supply of X-ray film, polaride Film, Fixer & Developer during the years

Mater als	1989	1991	1992	1993	1st. 6m 1994
Developer	20 set	16	8.5 set	11	1
F xer	20 set	16	6.5 set	n l	1
X-ray F lm d dd. s zes	394	147	99	43	15
Polar de F lm (X 16)	1800	n l	625	27	8

3. Tumour_markers:

These marker are mportant for d agnos s, assessment of response dur ng treatment and follow up. There are absence of most mportant ones as AfP, HCG, PiA, CEA, CA 125, Cale tonon, TiH, T4 and others.

4. Diagnostic_Image_technique:

a- X-rays there s severe shortage n X-ray f lms and polor de of var ous s ze and type and shortage n process ng mater al. ice table 1 wh ch g ve an dea about that shortage. Dur ng the lst 6 months of the year 1994 we reee ved only 3% of our actual need of X-ray f lms as compared w th year 1989. there s shortage n contrast med a as urograph n and l p odol wh ch are mportant for cancer stag ng, syr nges (d sposable) and also unava lab l ty of spare-parts requ red for ma nta n ng and repa r for X-ray, process ng mach nes and Ultra sound equ pment.

b- C.T.ican fac l t es s nearly out of order all the t me.

II. Treatment:

I. Radiotherapy_:

-mach ne: most of the rad otherapy mach nes are old and the last mach ne nstalled was n 1988, th s w ll result n ncrease of occurra of breakdown .

a- ipare parts: there s severe shortage n the spare parts of the rad otherapy mach nes wh ch result n some alterat on n the mach ne and om tt ng some essent al fac l t es , for example; var ous energ es have been om tted from the med um voltage mach ne. The X-ray fac l t es from 18 MEV l near accelerator had been itopped .

b- New sources ; due to the decay n the rad oact ve sources of the rad otherapy mach ne , these sources had to be replaced Amersham, Br t sh company d d not fulf ll the contract of supply ng two Cobalt - 60 sources. the use of these old sources w ll result n reduced dose rate and thus ncreased treatment t me and pat ent suffer ng.

e- Ma ntenance Contract: We were used to have contract w th fore gn compan es to ma nta n the rad otherapy mach nes but they have stopped the ma ntenance s nce 1990 .

ex: of compan es that d d fulf ll the ma ntenance contract of rad otherapy equ pment are :Var ans, Amer can Company. ih matzu, Japanese company i emens : German Company.

d. Installat on of new mach ne Installat on of new mach ne has stopped s nce 1990 and now we have one mach ne suppl ed part ally (Cobalt 60 un t).

B- Quality of Treatment:

a- ieveral fac l t es of equ pment have been om tted .

b- No mould room fac l t es wh ch are mportant to mprove the qual ty of rad otherapy and to reduce the amount of Rad at on to Normal sens t ve t ssue.

e- General soc al cond t on: The effect of the ianct on on the

economy, transportat on and the psychology had affected both the pat ents and the staff. The pat ent could not attend regularly for treatment (nterrupted courses). All the above ment oned factors w ll result n prolongat on of wa t ng t me and ncrease stresses on the staff. It also resulted n long work ng hours beyond those planned or contracted, rap d pat ent throughput n rad otherapy w th less ava lable t me for explanat on and for qual ty control and less attent on to such mportant act v t es as med cal aud t , cont nu ng educat on, teach ng , research and development.

2- Chemotherapy

Is the system c treatment of Cancer.

A- Drugs

a-There s shortage of 20 mportant drugs out of 31. ex. Act nomyc n D, Leukeran 2mg & 5 mg., BCNU nj., Th otepa nj., 5 fU, Calc um Leucovor n amp. & tab., Must ne, Melphalan tab., Methetroxate, Novantron, itreptozoc n, Mytomyc n C., Ifospham de, Mesna.

b-We are runn ng short of many essent al drugs for treatment of Hodgk n d sease,paed atr c sol d tumours and many other mal gane es ex: adr amyc n, Endoxan, Velbe, Bleomyc n,Etopos de.

c-New Drugs

No new drugs have been ntroduced s nce 1990 , ex: Carboplat n, Taxol, Tresulphan and others.

d-Due to the above ment oned facts we have to ;

=Restr ct the use of chemotherapy to sens t ve tumours w th rad cal ntent on.

=Change the reg me several t mes due to the non ava lab l ty of the drug dur ng the course or use of second l ne drugs w th less effect veness.

B- Other Facilities

a-Inject on fac l t es as cannula, icalpve n , needle, I.V set, I.V flu d

are severely affected by the sanct on.

b-Severe shortage of ant emet c and th s w ll ncrease pat ents morb d ty part cularly the absence of new effect ve of ant em t cs l ke Zofran or Gran setron.

c-Absence of Haemopoet c for growth factor as: GM-CiF, G-CiF, M-CiF.

C- Supportive Treatment:

There s great shortage n the follow ng support ve mater al:

a-Broad spectrum ant b ot cs as 3rd generat on Cephalos por nes and am nogly cos des.

b-No Ant fungal or Ant v ral drugs.

c- Shortage n stero ds to reduce the morb d ty of C.T.

Hormonal Treatment:

Is another system c form of treatment for hormone dependent tumors. The only ava lable hormon for breast cancer s Tamox fen and the amount suppl ed dur ng the Ist 6 months of the year 1994 s 18% of the actual need wh le other hormon are m ss ng l ke Or meten, Megestrol acetate, provera tab, Depo-provera nj. Wh le for prostat c cancer there s no s ngle hormone is ava lable even the s mplest st lbesterol, wh le the other new hormones l ke flutam de, Zol dex nj. have not been used. Hormone tab. have not been used for many years due to ts non ava lab l ty. We have shortage n Eltrox n for cases w th thyro d cancer.

Drugs	1989	1991	1992	1993	Ist 6m 1994	% of Qu act. need
Act nomyc n D	800	650	700	74	N I	
Bleomyc n 15mg	2500	1447	1200	1040	520	
Carmast ne BCNU	50	N I	20	26	N I	
Chlorambuc I 2mg tab.	53000	23275	14450	45000	N I	
C splat n 10mg	8250	4145	1105	3500	2080	
Endoxan 100mg V al	56500	33695	45400	13800	4150	
Th otepa 15mg	100	73	N I	N I	N I	
Endoxan 50mg tab.	60000	N I	6500	29000	16600	
Cytosar 100mg	600	503	250	160	483	
DTIC 100mg.	3250	2275	450	1500	1880	
Adr amyc n 10mg.	28000	10456	14000	17215	5910	
Vepes de 100mg.	1200	374	450	200	1460	
Vepes de 100mg Cap.	2200	388	N I	330	240	
5FU 250mg.	20500	11640	13000	10000	7800	
Leucovor n amp.	100	N I	200	N I	N I	
CCNU 40mg Cap.	2700	1370	750	500	600	
Must ne	470	120	N I	N I	N I	
Mulphalan 2mg	10000	4700	4800	7500	7500	
MTX 50mg V al	7000	6087	5200	4000	2193	
Mytomyc n C 10mg.	4000	330	1050	1000	150	
Natulan Cap.	20400	7500	27300	1700	600	
Novantron 20mg.	N I	310	40	900	300	
Velbe 10mg	1200	178	150	260	310	
V n cr st ne 1mg.	12250	4740	6950	5100	900	
itrepto Zotac n						

Material	1989	1991	1992	1993	Ist 6M 1994	%
D sp. iyr nges d ff. s zes	185000	39550	39450	35990	9200	
icalp Ve n Needle	24000	7400	7600	5000	4800	
I V. iet	13000	3500	2400	1000	N I	
nrg cal gloves	3000	600	600	600	600	
Folly's Catheter	2680	1000	400	690	150	
Cannula	4000	350	2500	1600	N I	

Name of Drug	1989	1991	1992	1993	Ist 6M of 1994	%
Nolvadex 10mg tab.	450000	110100	300000	300000	81000	
Provera 100mg tab.	15000	8500	1300	7100	7080	
Depo-Provera 500mg V al	150	142	N I	90	47	
Honovan Tab	3400	4950	6000	5500	N I	
Nonovan Amp.	100	90	350	70	110	
Zol dex						
it lbestrol						
Flutam do						

Immunotherapy;

No s ngle agent s ava lable n Iraq , for example; Interferon, Interluk n - 2, Monoclonal ant bod es aga nst TAA.

IV. Patient Care

1. Pa n K ller: Cancer pat ent suffer from severe pa n due pressure on nerve,

nf ltrat on, bone metastas s and they are n need of strong pa n k ller. There s absence of the strong analges c l ke Cod en, M st., Morph ne, MiT tab. and other s mple analges c.

2. Phys cal rehab l tat on :

The advance n Cancer treatment resulted n long surv val and the a m of the oncolog st s to ass st n return ng the pat ent to h s or her pretreatment status or to a state as close as poss ble to t w th severe shortage n the a ds needed for rehab l tat on .

3. Psycholog cal Rehab l tat on;

The cancer pat ent suffers from spec al and severe forms of stress, the threat of ad sab l ng d sease, mut lat on or loss by surgery of an important part of the body or death, th s requ res spec al psychatr c care.

follow Up;

Follow up of cancer pat ent s extremely important n order to p ck up early s gn of recurrence or metastas s of the d sease. It s carr ed out on regular nterval. But due to the ianct ons, the pat ents couldn't attend regularly for follow up , also the absent of tumour markers , shortage of X-ray f lms , b ochem cal reagents result n unsat sfactory follow-up and the pat ents attend only after d ssem nat on of the r d sease.

Effect on Cancer Death:

Bronchus, Breast and Ur nary Bladder, Mal gnanc es are the lead ng causes of cancer death . The total number of death due to Cancer reg stered dur ng the year 1993 n Iraq were 4481 cancer death wh le the number reg stered dur ng the year 1989 was ( ).